

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P550950

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-80-97-ED1D**

Issue Date: 7/9/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P550950  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FCC-X-2-LD4-1STD-30-UNV-80-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

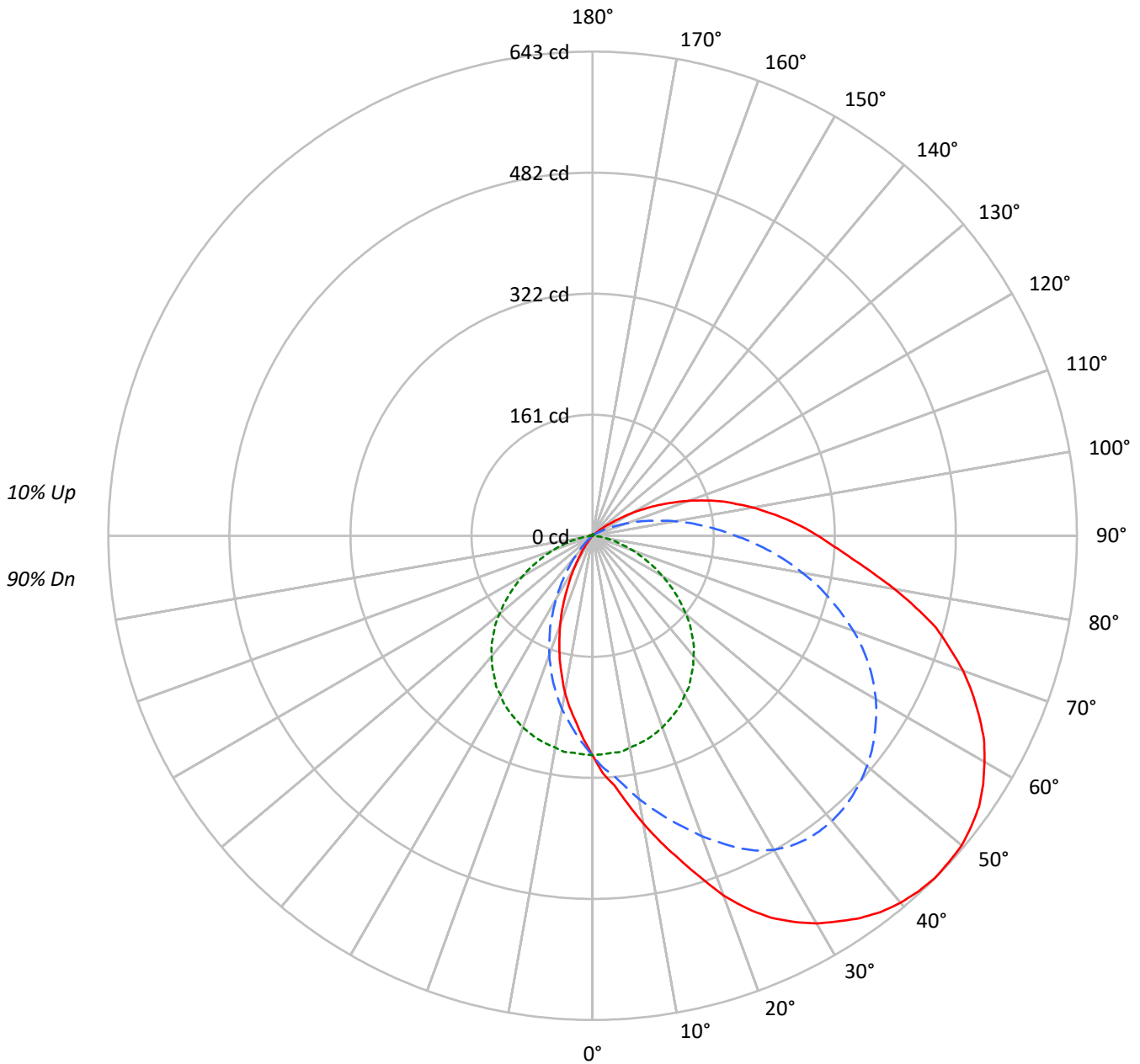
Lumens per Lamp: N/A  
Luminaire Lumens: 1441.0 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-80-97-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	3138	3138	3138
5°	3444	3092	2580
10°	3897	3053	2125
15°	4368	3015	1657
20°	4926	2966	1220
25°	5390	2909	801
30°	5734	2832	451
35°	6031	2750	199
40°	6296	2649	48
45°	6522	2522	0
50°	6713	2354	0
55°	6858	2140	0
60°	6931	1892	0
65°	6960	1611	0
70°	6937	1314	0
75°	6848	970	6
80°	6571	591	31
85°	6351	285	40



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.9	1.9
10°-20°	83.6	5.8
20°-30°	135.4	9.4
30°-40°	173.9	12.1
40°-50°	196.9	13.7
50°-60°	203.9	14.2
60°-70°	192.3	13.3
70°-80°	161.2	11.2
80°-90°	116.8	8.1
90°-100°	76.8	5.3
100°-110°	44.3	3.1
110°-120°	19.6	1.4
120°-130°	5.3	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	246.9	17.1
0°-40°	420.8	29.2
0°-60°	821.6	57.0
0°-90°	1292.0	89.7
90°-120°	140.7	9.8
90°-150°	148.0	10.3
90°-180°	149.0	10.3
0°-180°	1441.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	292	292	292	292	292	
5°	333	320	289	262	249	34
15°	444	390	280	202	169	128
25°	560	457	259	133	83	259
35°	620	493	228	65	20	389
45°	643	488	186	15	0	496
55°	626	457	134	0	0	559
65°	566	405	80	0	0	560
75°	472	327	34	0	0	495
85°	345	237	6	2	2	295
90°	299	190	2	2	3	164
95°	257	148	1	3	3	202
105°	177	77	1	2	3	187
115°	96	25	1	1	2	96
125°	29	4	2	1	2	29
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5
2.5°	316.0	315.6	314.5	312.6	310.0	305.6	301.9	298.5	294.1	290.4	283.3
5°	332.7	330.8	329.4	327.5	321.6	317.5	310.8	303.4	296.3	289.3	275.1
7.5°	359.4	356.5	354.2	349.0	340.9	331.6	321.2	314.1	309.3	289.6	265.5
10°	388.0	385.4	381.0	371.7	361.7	348.3	333.4	316.7	301.9	285.5	256.9
12.5°	416.2	412.5	406.2	394.3	380.2	363.5	343.1	323.4	302.2	282.9	246.9
15°	444.5	440.4	433.7	419.2	400.6	378.7	353.9	329.0	304.1	279.6	236.5
17.5°	475.3	469.7	459.7	443.3	420.0	392.8	363.5	333.4	303.4	275.5	225.4
20°	508.3	500.5	489.8	467.9	440.4	408.4	373.2	337.9	303.0	270.7	212.8
22.5°	535.8	528.0	516.1	493.5	460.4	421.4	381.3	340.9	301.5	265.1	200.9
25°	559.6	553.3	540.3	514.3	479.4	435.2	389.1	343.1	299.3	259.2	188.3
27.5°	578.1	572.2	557.7	531.0	495.3	447.4	395.1	344.2	296.3	253.2	175.3
30°	594.5	588.5	571.1	543.6	506.1	457.1	401.0	344.6	292.6	244.3	161.1
32.5°	607.1	601.5	583.7	554.4	513.5	463.8	404.4	344.2	287.8	238.0	145.9
35°	619.7	614.1	593.4	562.2	519.1	466.7	407.0	342.3	281.8	227.6	131.4
37.5°	629.4	623.1	601.9	567.4	521.7	467.5	406.6	339.8	275.5	219.1	117.0
40°	636.1	629.4	606.7	570.3	522.4	466.4	403.6	335.3	268.1	208.3	101.7
42.5°	640.5	633.1	609.0	574.8	521.0	463.4	399.2	329.7	259.9	199.0	87.3
45°	642.7	634.9	609.3	571.1	518.4	457.8	392.5	322.7	251.0	186.4	72.8
47.5°	641.6	633.1	607.5	567.0	513.5	451.9	385.1	314.1	240.2	175.3	59.0
50°	639.8	630.9	603.4	561.8	506.8	444.5	376.9	303.7	229.1	161.5	46.8
52.5°	633.8	624.9	598.9	554.4	499.0	435.9	365.7	293.0	217.2	148.2	35.6
55°	626.4	618.2	591.1	547.7	489.0	425.5	355.3	281.5	205.7	134.4	25.6
57.5°	614.9	607.5	581.5	536.9	479.0	414.0	343.8	268.8	191.2	120.7	17.8
60°	600.8	593.4	568.1	524.7	467.5	401.0	331.2	255.8	178.2	106.9	11.1
62.5°	585.9	578.9	552.5	509.4	453.0	387.3	317.5	242.8	164.5	94.3	6.7
65°	566.3	559.6	535.8	491.2	437.0	372.4	302.2	227.2	150.4	80.2	3.7
67.5°	545.5	539.5	515.4	474.5	418.5	356.1	286.7	212.0	135.5	68.0	1.9
70°	523.2	515.8	493.5	451.9	399.5	337.5	269.6	196.4	121.4	56.1	0.0
72.5°	497.2	491.6	470.1	430.7	377.6	317.8	252.1	179.3	105.8	44.6	0.4
75°	471.9	464.9	445.2	408.1	356.1	297.0	232.8	163.4	90.6	34.2	0.4
77.5°	439.3	437.0	418.5	382.5	335.7	277.0	211.6	144.1	76.1	24.5	0.4
80°	406.6	404.4	389.9	356.8	311.9	253.2	192.0	125.9	62.0	16.3	0.4
82.5°	374.3	371.3	357.6	330.1	287.8	233.2	171.5	107.7	49.0	10.0	0.4
85°	345.3	341.6	326.8	301.5	262.9	210.5	150.4	89.9	36.4	5.6	0.7
87.5°	320.4	317.8	301.5	275.5	237.6	189.4	131.8	72.8	25.6	2.6	1.1
90°	299.3	293.7	279.2	251.7	213.9	166.0	112.1	58.3	17.1	1.5	1.5
92.5°	278.5	273.7	257.7	229.5	192.7	145.9	93.2	44.6	10.8	0.7	1.9
95°	256.9	251.7	236.2	210.2	171.2	125.5	76.5	32.7	5.9	0.7	1.9
97.5°	235.8	231.0	214.6	188.6	151.9	107.7	60.5	23.0	3.0	0.7	1.5
100°	216.1	210.5	195.7	169.7	132.6	89.9	46.8	14.9	1.9	0.7	1.5
102.5°	195.3	190.9	175.6	150.4	112.5	73.1	34.9	9.3	0.7	0.7	1.1
105°	176.7	171.2	156.3	130.3	95.8	57.6	24.5	5.6	0.7	0.7	1.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	115.1	110.7	97.7	75.7	48.6	22.7	6.7	1.1	1.1	1.1	1.1
115°	96.2	89.5	78.0	58.7	36.0	14.9	3.3	1.1	1.1	1.1	1.1
117.5°	76.9	71.3	63.1	44.6	23.8	9.7	1.9	1.1	1.1	1.1	1.1
120°	60.2	55.0	45.7	30.8	16.0	5.6	0.7	1.1	1.1	1.1	1.1
122.5°	43.1	39.0	30.8	20.1	9.7	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.6	26.4	20.4	12.3	5.9	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.6	16.7	11.9	7.1	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.4	9.3	7.1	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.9	5.6	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	291.5	291.5	291.5
2.5°	277.4	272.2	270.7
5°	262.5	254.0	249.2
7.5°	247.7	236.2	230.6
10°	233.9	217.6	211.6
12.5°	217.6	198.7	189.4
15°	202.0	177.5	168.6
17.5°	184.5	157.1	146.7
20°	168.2	136.6	125.9
22.5°	149.6	116.6	104.7
25°	132.9	96.5	83.2
27.5°	114.4	76.1	64.6
30°	96.9	58.3	46.8
32.5°	80.2	42.7	32.3
35°	64.6	29.0	20.4
37.5°	49.8	17.8	10.4
40°	36.0	9.3	4.8
42.5°	24.1	4.5	2.6
45°	14.9	2.2	0.0
47.5°	8.5	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.2
87.5°	1.9	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	3.0	3.0
95°	2.6	3.0	3.3
97.5°	3.0	3.3	3.3
100°	2.6	3.3	3.7
102.5°	2.2	3.3	3.3
105°	1.9	2.6	3.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	156.0	151.5	136.6	112.1	78.3	43.8	16.3	3.0	0.7	1.1	1.1
110°	135.9	132.2	117.0	93.2	63.1	32.7	10.8	1.9	1.1	1.1	1.1







107.5°	1.5	2.2	2.6
110°	1.5	1.9	2.2



(END OF REPORT)